

Claims

What is claimed is:

1. A computer-based method of performing automated distribution of a software package to one or more target machines in one or more regions of a distributed network of target machines, the method comprising the steps of:

preparing a base software package for each of the one or more regions based on at least one of: (i) policy data indicating which of the one or more regions are candidates for receiving the software package, (ii) dependency information indicating requisites for a service provided by the software package, and (iii) configuration information for each of the candidate regions;

distributing the base software package to each of the candidate regions of the distributed network;

customizing the base software package received at each of the candidate regions based on at least one of: (i) regional distribution policies, (ii) dependency information specific to one or more roles performed by the target machines in that region, and (iii) individual target machine configuration information; and

distributing the software package customized in each of the candidate regions to at least one of the target machines in the candidate regions of the distributed network.

2. The method of claim 1, wherein the dependency information indicating requisites for a service provided by the software package comprises at least one of a pre-requisite, an ex-requisite and a co-requisite associated with installation of the software package on a target machine.

3. The method of claim 1, wherein the dependency information indicating requisites for a service provided by the software package is represented in the form of a multi-level tree.

4. The method of claim 3, wherein one or more leaves of the tree represent one or more software components.

5. The method of claim 1, wherein the one or more roles performed by the target machines in a region comprise a client role, a server role and a standalone role.

6. The method of claim 1, further comprising the step of also permitting manual control over the installation of the software package on a target machine.

7. The method of claim 6, wherein manual control over the installation of the software package on a target machine is effectuated by setting a flag.

8. The method of claim 1, further comprising the step of maintaining a policy repository indicating steps needed to construct distributable component packages for different regions and different end user environments.

9. The method of claim 1, wherein the individual target machine configuration information used to customize the base software package received at a candidate region is one of stored prior to use and determined at the time of use.

10. A system for performing automated distribution of a software package to one or more target machines in one or more regions of a distributed network of target machines, the system comprising:

a service distribution server, the service distribution server being operative to: (i) prepare a base software package for each of the one or more regions based on at least one of policy data indicating which of the one or more regions are candidates for receiving the software package, dependency information indicating requisites for a service provided

by the software package, and configuration information for each of the candidate regions; and (ii) distribute the base software package to each of the candidate regions of the distributed network; and

one or more region servers, each of the region servers being operative to: (i) customize the base software package, when received, based on at least one of regional distribution policies, dependency information specific to one or more roles performed by the target machines in the region of the region server, and individual target machine configuration information; and (ii) distribute the customized software package to at least one of the target machines in the region of the region server.

11. The system of claim 10, wherein the dependency information indicating requisites for a service provided by the software package comprises at least one of a pre-requisite, an ex-requisite and a co-requisite associated with installation of the software package on a target machine.

12. The system of claim 10, wherein the dependency information indicating requisites for a service provided by the software package is represented in the form of a multi-level tree.

13. The system of claim 12, wherein one or more leaves of the tree represent one or more software components.

14. The system of claim 10, wherein the one or more roles performed by the target machines in a region comprise a client role, a server role and a standalone role.

15. The system of claim 10, wherein the installation of the software package on a target machine may also be manually controlled.

16. The system of claim 15, wherein manual control over the installation of the software package on a target machine is effectuated by setting a flag.

17. The system of claim 10, further comprising a policy repository for indicating steps needed to construct distributable component packages for different regions and different end user environments.

18. The system of claim 10, wherein each region server is further operative to one of maintain the individual target machine configuration information used to customize the base software package prior to use and determine the information at the time of use.

19. The system of claim 10, further comprising one or more repositories for storing the policy data indicating which of the one or more regions are candidates for receiving the software package, the dependency information indicating requisites for a service provided by the software package, and the configuration information for each of the candidate regions.

20. The system of claim 10, further comprising one or more repositories for storing the regional distribution policies, the dependency information specific to one or more roles performed by the target machines in the region of the region server, and the individual target machine configuration information.

21. An article of manufacture for performing automated distribution of a software package, in accordance with a service distribution server, to one or more target machines in one or more regions of a distributed network of target machines, the article comprising a machine readable medium containing one or more programs which when executed implement the steps of:

preparing a base software package for each of the one or more regions based on at least one of: (i) policy data indicating which of the one or more regions are candidates for receiving the software package, (ii) dependency information indicating requisites for a service provided by the software package, and (iii) configuration information for each of the candidate regions; and

distributing the base software package to each of the candidate regions of the distributed network for subsequent customization of the base software package received at each of the candidate regions based on at least one of regional distribution policies, dependency information specific to one or more roles performed by the target machines in that region, and individual target machine configuration information; and for subsequent distribution of the software package customized in each of the candidate regions to at least one of the target machines in the candidate regions of the distributed network.

22. An article of manufacture for performing automated distribution of a software package, in accordance with a region server, to one or more target machines in a region of a distributed network of target machines having one or more regions, the article comprising a machine readable medium containing one or more programs which when executed implement the steps of:

obtaining a base software package prepared for the region associated with the region server based on at least one of policy data indicating which of the one or more regions are candidates for receiving the software package, dependency information indicating requisites for a service provided by the software package, and configuration information for the region associated with the region server;

customizing the obtained base software package based on at least one of regional distribution policies, dependency information specific to one or more roles performed by the target machines in the region associated with the region server, and individual target machine configuration information; and

distributing of the customized software package to at least one of the target machines in the region associated with the region server.

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